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ABSTRACT

This paper looks at the impact of comorbid personality disorders on the non-pharmacological treatment of Axis I disorders. It provides a review of the empirical literature on treating Axis I disorders in those who have a comorbid personality disorder. Research suggests that treating such persons provides some measure of symptomatic relief in the majority of cases. However, progress is often slower and overall level of functioning lower for those with personality disorders when compared to their non-personality disordered counterparts. Brief treatments for the Axis I disorders in those with comorbid personality disorders appear to be necessary but not sufficient. Some measure of success can be achieved in treating Axis I disorders, although gains may be less significant. Implications are discussed for further research. (Contains 66 references.) (JDM)

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THE NON-PHARMACOLOGICAL TREATMENT OF AXIS I CONDITIONS IN THE PRESENCE OF COMORBID PERSONALITY DISORDERS: A REVIEW OF THE LAST FIVE YEARS

A Doctoral Research Paper

Presented to

the Faculty of the Rosemead School of Psychology

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Psychology

by

Marc S. Houck

August, 2001

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by

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ABSTRACT

THE NON-PHARMACOLOGICAL TREATMENT OF AXIS I CONDITIONS IN THE PRESENCE OF COMORBID PERSONALITY DISORDERS: A REVIEW OF THE LAST FIVE YEARS

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This paper examines the impact that comorbid personality disorders have on the non-pharmacological treatment of Axis I disorders. Past reviews of this nature and their general conclusions are discussed. The remainder of the paper reviews the empirical literature on treating Axis I disorders in those who have a comorbid personality disorder. The research suggests that treating such persons generally provides some measure of symptomatic relief in the majority of persons studied. However, progress is often slower and overall level of functioning lower for those with personality disorders when compared to their non-personality disordered counterparts. Treating the Axis I disorder in those with comorbid personality disorders appears to be necessary but not sufficient. Implications for further research are discussed.

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THE NON-PHARMACOLOGICAL TREATMENT OF AXIS I CONDITIONS IN THE PRESENCE OF COMORBID PERSONALITY DISORDERS: A REVIEW OF THE LAST FIVE YEARS

Introduction

It is well established that psychotherapeutic intervention is effective in lessening the impact of various psychological disorders and symptoms. The treatment of such conditions is complicated, however, in those persons with both clinical and comorbid personality disorders. This paper will initially summarize previous reviews of this topic. From that point, the literature from the past 5 years addressing treatment outcome studies for comorbid conditions will be examined. Particular emphasis will be given to the impact personality disorders have upon the treatment of anxiety, somatoform, and depressive disorders. Due to the plethora of research in this area, the current review will not include literature where substance abuse or pharmacotherapy was studied. Finally, important themes, problems, and conclusions regarding treatment outcome in recent comorbidity literature will be discussed.

General Considerations and Past Reviews

As a foundation to the topic of treatment outcome for comorbid Axis I and Axis II disorders, preliminary comments are in order. In the section that follows, the general effectiveness of psychotherapy will be discussed prior to examining what current research

says about its effectiveness for comorbid conditions. In addition, the issue of diagnosis and comorbidity will be explored. Finally, past studies on treating comorbid Axis I and Axis II conditions will be considered.

The Effectiveness of Psychotherapy

For years prior to the advent of psychotherapy, clergy and those respected in communities were sought out for counsel, support, and help for problems in living. This was effective for many people, and no scientific proof was needed or even considered. As more specific methods for treating psychological and emotional problems emerged, and as the 20th century health care climate has called for greater accountability, psychotherapy's value and effectiveness has been challenged.

A large body of research points to the effectiveness of treating psychological and emotional problems. Among many others, Bergin and Lambert (1978) concluded that a majority of those receiving psychotherapy gained improvement. In fact, Lambert (personal communication, 2000) stated that nearly 80% of clients seen for psychotherapy improve, regardless of the theoretical orientation used in treatment.

Over the years, a plethora of research has affirmed the positive effects of professional treatment for psychological problems. For example, the well-known meta-analysis of 475 studies by Smith, Glass, and Miller (1980) showed substantial improvements for psychotherapy patients versus those who received no professional treatment. Others have shown that the average psychotherapy patient is better off than 80% of untreated patients (Lambert & Bergin, 1994). Another example is the work of Seligman (1995). Despite its possible shortcomings in design, Seligman's large-scale

survey lent additional support for the positive effects of psychotherapy in people's lives. He concluded that psychotherapy provided substantial benefits for patients. Increased treatment length and lack of insurance limits were related to more positive outcomes. No specific therapeutic modality appeared to be superior overall.

A number of modality-specific, empirically validated treatments have found a place in the research regarding the overall effectiveness of psychotherapy (e.g., Elkine, Shea, & Watkins, 1989; Keefe, Dunsmore, & Burnett, 1992). The field of outcome research continues to grow in sophistication despite numerous controversies. The first step in examining treatment outcome, however, is arriving at a diagnosis for the problems being treated.

Diagnosis of Psychological Disorders

In the United States, the primary method of diagnosing emotional and psychological difficulties is through use of the American Psychiatric Association's (1994) Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Diagnoses from the DSM-IV are divided into a five-axial system, including Clinical Disorders and Other Conditions that may be a Focus of Clinical Attention (Axis I), Personality Disorders and Mental Retardation (Axis II), General Medical Conditions (Axis III), Psychosocial and Environmental Problems (Axis IV), and Global Assessment of Functioning (Axis V). Treatment of disorders on the first two axes is the focus of this paper.

The disorders on Axis I, Clinical Disorders, are broad in scope. Frequently encountered diagnoses on Axis I include, for example, Major Depressive Disorder and

various anxiety disorders such as Generalized Anxiety Disorder or Social Phobia. Personality disorders are found on Axis II. According to DSM-IV (American Psychiatric Association, 1994), a personality disorder is "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (p. 629). DSM-IV outlines 10 specific personality disorders that can be diagnosed on Axis II, and it also suggests that these disorders may overlap both with one another and with various Axis I conditions.

The outcome research on treating Axis I conditions in those with personality disorders is faced with problems of diagnosis. It is questionable whether using discrete personality diagnoses, which is the norm, is the best or most helpful way of understanding character pathology. In relation to this, Roth and Fonagy (1996) state, "There is some controversy over the definition and description of personality disorders and over the degree to which accurate diagnosis is possible" (p. 205), and it seems that many clinicians take issue with current methods. The skill of exact and discrete diagnosis is not, then, a straightforward exercise, and problems here filter into the treatment outcome literature. Determination of personality pathology it seems is inexact at best.

Although it is not the focus of this paper, the issue of diagnosis seems relevant when reviewing outcome research. In addition to the fact that diagnosing a personality disorder alone is not a clear-cut endeavor, the issue of comorbidity presents even further problems. According to Links (1996), comorbidity is the "labeling of a symptom disorder and a personality disorder in the same patient at one point in time" (p. 95). Links

discussed how the concept of comorbidity is "fraught with difficulties"(p. 94), a statement with which many agree. When diagnosing a patient, be it for clinical or research purposes, the clinician is faced with the difficult task of understanding what he or she is assessing.

Comorbidity, according to Links (1996), may be an artifact of the current, problematic diagnostic system. Perhaps disorders, both Axis I and Axis II, are not nearly as discrete as the DSM-IV makes them seem. Personality disorders may also predispose patients to bouts of Axis I conditions, or, conversely, serious Axis I pathology may lead to the development of consistent, maladaptive personality patterns. Perhaps Axis I disorders look like personality disorders at times when they really are not, or perhaps the two types of clinical problems occur in a more unrelated manner. The explanations may vary from one set of diagnoses to another (Links, 1996). This problem of diagnosis and sorting out disorders is found throughout the literature reviewed in this paper. As the DSM-IV is the current standard for the field, the present literature review presses forward with these and other difficulties in mind.

Past Literature Reviews

In their 1993 article, Reich and Vasile reviewed 26 studies of personality disorder and comorbid affective disorders, Panic Disorder, and Obsessive-Compulsive Disorder (OCD). The authors concluded that in 11 of 14 studies, a comorbid personality disorder was related to poorer treatment outcome in mood disorders. This pattern held for studies of personality disorder and Panic Disorder, with six of the seven studies showing poorer outcome for those with personality disorder. In one of these, those with a personality

disorder tended not to complete treatment. Reich and Vasile reviewed five studies of personality disorder and OCD, and found that four of the five showed poorer outcome for participants with a personality disorder. The authors concluded that poorer outcomes were obtained in 21 of 26 studies. They summarized their findings by stating, "Our examination of the recent literature confirms the earlier findings of the adverse impact of personality disorder on treatment outcome" (p. 481).

In addition to their general conclusions, Reich and Vasile (1993) raised a number of important issues to be considered in this area of study. They noted a shifting focus in outcome studies from categorical personality disorder diagnoses to specific personality traits. They also suggested that, since there is no "gold standard" for personality assessment, multiple measures should be used in research and treatment. The authors offered a number of questions for researchers and clinician to consider regarding the nature of personality disorders and Axis I diagnoses, and they also suggested that certain personality traits might actually facilitate rather than encumber treatment.

Due to the relatively high activity in the research of comorbidity, a number of authors have summarized progress in outcome literature since Reich and Vasile's 1993 review. One such author is Links (1996), who summarized the literature regarding the effect of personality disorder on depression, schizophrenia, and anxiety disorders. He stated that personality disorder affects depression by increasing suicidal behaviors (two studies), causing a poorer response to treatment (four studies), and increasing the risk of developing this Axis I condition (three studies). Links reported that those with acute depression endorse more personality disorder symptoms. However, he added that for

those in whom a personality disorder existed prior to depression, the "successful treatment of depression will, at most, decrease their affective level of distress. These patients are unlikely to be depressive symptom free after treatment" (p. 96).

Links' (1996) review of personality disorder and comorbid anxiety and schizophrenia disorders was similar to that of depression. He concluded that anxiety disordered patients tend to be more dysfunctional overall and to respond less well to treatment. For schizophrenic patients, Links stated that the effects of comorbid personality disorder are unclear, probably due to diagnostic difficulties, but that personality disorder may affect treatment compliance and interfere with the therapeutic alliance. Overall, then, Links agreed with Reich and Vasile (1993) that comorbid personality disorder has a generally negative impact on the treatment of Axis I conditions.

A third review of the literature in the 1990s was done by Target (1998), who looked at the psychosocial treatment of personality disorders. Her general conclusion was that comorbid personality disorders tend to reduce the effectiveness of symptom-oriented treatments of Axis I disorders. She also stated that "those with severe personality disorders are not well-served by the brief therapy models most commonly applied in outcome research. These individuals tend to need long-term or even continuous treatment" (p. 225).

In relation to specific personality disorder/Axis I treatments, Target (1998) found in her review that five of seven studies on depression indicated poorer results for those with personality disorder and one study had mixed results. This held true for anxiety disorders, where results for seven of eight studies indicated poorer personality disorder

outcome and the other study's results were mixed. One study provided evidence of less effective treatment for those with an eating disorder and comorbid personality disorder.

Dreesen and Arntz (1998) reviewed the impact of personality disorder on anxiety disorder treatment. Because the authors noted numerous problems with the outcome research in this area, they set specific inclusion criteria for which of 35 studies they would review. First, they determined that only studies with prospective designs would be included. This meant that studies where a personality disorder was diagnosed after an Axis I disorder or after outcome, with reviewers not blind to these factors, were not eligible. Second, only studies which used a semi-structured interview for diagnostic purposes would be included. The authors found self-report measures to be problematic. With their criteria in place, Dreesen and Arntz reviewed only 15 of these 35 studies. They called this the "best evidence" review (p. 483). While they seemed to be sensitive to real problems of diagnosis in past studies, it is also possible that their selection criteria were overly stringent. Using such criteria may discount and ignore studies with valuable information on treatment outcome.

The anxiety disorders covered in the Dreesen and Arnst (1998) review were Panic Disorder, Obsessive-Compulsive Disorder, Social Phobia, Generalized Anxiety Disorder, and "any" anxiety disorder. Based on the "best evidence" criteria, the reviewers stated "it cannot be concluded that, in general, patients with a personality disorder respond less to treatment for their Axis I anxiety disorder compared to patients without a personality disorder" (p. 492). Curiously, however, they went on to mention that some studies yielded mixed results and that the detrimental effects of a personality disorder were noted by

several authors. This message to the reader, then, seemed more mixed than some of the definitive statements the authors made.

The final review to be discussed here is that of Schweiger (1999). He briefly reviewed the literature on treating Axis I conditions in persons with a comorbid personality disorder and suggested the implications for the treatment of such persons by the health care system. Unlike the present review, Schweiger included dual diagnosis and pharmacotherapy studies, along with those on eating disorders, pain, panic disorders, and depression.

Schweiger (1999) pointed to three general conclusions in relation to the problem of comorbidity and treatment. First, he reported that usually only a reduction of symptoms in relation to pretreatment occurs with time-limited therapy. This statement implies that although Axis I symptoms may decrease with treatment, those with untreated personality disorders often still meet the criteria for the Axis I disorder for which they were being treated. Schweiger stated that brief treatment for those with comorbid Axis I and personality disorder conditions does not meet the "ethical and legal mandate to perform adequate treatment" (p. 10). Instead, he suggests, as does Links (1996), that patients with these comorbid conditions should receive therapy for both the Axis I symptoms and the personality disorder conditions.

The results of past reviews are somewhat mixed. However, these authors generally conclude that personality disorders have a negative impact on the treatment of Axis I conditions. They also suggested that treatment of comorbid Axis I and Axis II disorders should address both conditions, not one or the other.

Review of Empirical Literature from the Last Five Years

In addition to the above literature reviews, numerous researchers have studied the treatment of Axis I disorders in those with comorbid personality disorders. These empirical studies are reviewed in the following pages, with a focus on anxiety disorders, somatoform disorders, depressive disorders, and Bulimia Nervosa. Finally, an alternative model for treating those with comorbid Axis I and II disorders will be described.

Anxiety Disorders

Five recent studies examined personality disorder as related to the treatment of various anxiety disorders. Chambless, Tran, and Glass (1997) examined the response of patients with Social Phobia to cognitive-behavioral group therapy. Participants included 27 men and 35 women (n = 62) who entered an agoraphobia and anxiety treatment center with primary diagnoses of social phobia (41 generalized, 21 specific). They were of diverse backgrounds, although nearly 90% were from upper middle or middle class socioeconomic levels. Those with a history of psychosis or organic brain disorders, current substance dependence, suicide risk, and confounding medical conditions were excluded. All participants on medication were required to maintain constant dosage. Two participants declined to participate and two dropped out after the study began, leaving 60 who completed the treatment protocol. Fifty-nine of them provided post-test data, and 48 completed post-test evaluations at the six-month follow-up.

Several measures were used to determine diagnosis in this study, including the Beck Depression Inventory (BDI; Beck & Steer, 1987), self-reports about anxiety, depression, and social aspects; interviews; and behavioral/cognitive assessments.

Chambless et al. (1997) reported that raters were consistent from pre- to post- test within each group but varied at follow-up. They determined five common and unique factors among the self-report measures and behavior tests using a factor analysis with varimax rotation. The five factors were Anxious Apprehension, Dyad Anxiety and Skill, Speech Anxiety, Speech Skill, and Observed Anxiety and Skill. Study participants were also behaviorally assessed on brief speeches, same-sex conversations, and mixed-sex dyad conversations.

Chambless et al. (1997) also employed clinical interviews and behavioral ratings. The Structured Clinical Interview for DSM-III-R, outpatient version (SCID; Spitzer, Williams, Gibbon, & First, 1990) was administered to 30 patients to confirm an initial social phobia diagnosis. Patient's impairment in eight social areas was rated on the Global Impairment of Social Domains. Personality diagnosis was determined by the Avoidant, Dependent, Histrionic, Obsessive-Compulsive, and Paranoid scales of the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983; Millon 1987). This measure was added after the study was in progress and scores were not available for all clients.

Study participants were assessed at pretreatment, posttreatment, and 6-month follow-up with most measures (Chambless et al., 1997). The MCMI was administered pretest only, and treatment expectations were assessed at the end of the first session. Treatment conditions in this study consisted of cognitive-behavioral group therapy conducted by two doctoral students. Within the groups, a package of interventions was used, including education, cognitive restructuring, in-session exposure, breathing techniques, and homework with in vivo exposure.

Overall, clients showed improvement on self-rated and observed factors at post-treatment ($p < .02$) and on self-reports from pre-test to follow-up ($p < .001$). Observer ratings at follow-up were not significant. To assess change, the researchers used bivariate correlations between the predictors and residual gain scores, which "indicate change with treatment, adjusting for different levels of pretreatment severity" (Chambless et al., 1997, p. 231). From pre- to post- test, bivariate correlations reflected that initial depression was the greatest predictor of gains. Those who were more depressed at pretest improved less. Personality traits did not predict overall change with treatment, although those with avoidant traits demonstrated significantly less improvement in Anxious Apprehension ($r = .34$, $p < .05$) and somewhat less reduction in Speech Anxiety ($r = .25$, $p < .10$).

In a multiple regression for Anxious Apprehension, avoidance traits and depression showed probable co-linearity. Avoidance explained more variance than depression as a predictor did; therefore depression was dropped from the regression. Chambless et. al (1997) stated that "Clients with more avoidant traits reported less reduction in anxious apprehension between pre- and posttest" ($t[38] = 2.23$, $p = .03$). This explained six percent of the total variance. Chambless et. al (1997) also reported that personality traits were "generally weak predictors of changes" from pretest to 6-month follow-up (p. 233).

In a second multiple regression, avoidance traits were dropped as a predictor of Dyad Anxiety and Skill due to possible co-linearity with less explained variance than depression. The researchers concluded that personality traits, with the possible exception of avoidant traits, were not useful predictors of treatment outcome. In addition, they noted

that, because depression and avoidant traits seem to co-occur, the differential effects are difficult to discern.

Generally, this study suggests that although those with personality disorders have greater overall pathology, focused treatment of Axis I disorders is still beneficial. Although treatment is generally helpful, the researchers recognized that brief treatment for Axis I disorders may be insufficient for more disturbed patients. It should also be noted that the most severe social phobics may not have been represented in this study, as such persons normally avoid group situations.

Scholing and Emmelkamp (1999) attempted to replicate Chambless et al.'s 1997 study focused on predicting treatment outcome for Social Phobia. Dutch subjects (n = 108) were included in this study if they had completed treatment and participated in an 18-month follow-up. One group, those with generalized Social Phobia (GSP), included 50 participants. The other group, those with fear of somatic symptoms (SSP), numbered 26. All subjects met Diagnostic and Statistical Manual of Mental Disorders, third edition, revised (DSM-III-R; American Psychiatric Association, 1987) criteria for Social Phobia. A total of 18 received additional treatment between the 3- and 18-month follow-ups, though the researchers reported those who did so were not significantly different from other participants in demographics or diagnoses.

All patients in Sholing and Emmelkamp's (1999) study were treated with 16 sessions of CBT: 4 weeks of twice weekly therapy, followed by 2 weeks off and then 4 additional weeks of therapy. However, the treatment conditions were different for each group. The GSP group was randomly assigned to group or individual treatment and one

of the following: exposure in vivo, two weeks of cognitive therapy followed by exposure, and cognitive therapy and exposure combined. The researchers reported that there were no overall differences between individuals and groups or between treatment conditions and, due to this, the GSP group results were combined.

The SSP group was given individual therapy and participants were randomly assigned to either in vivo exposure followed by cognitive therapy, cognitive therapy followed by in vivo exposure, or two blocks of these therapies integrated. No differences were found between these treatment conditions (Scholing & Emmelkamp, 1999).

Participants in Scholing and Emmelkamp's (1999) study were assessed before treatment, after each treatment block, and at 3 and 18 months after the last session. Numerous assessment measures were implemented. Avoidance of social situations was measured by the mean score of the Social Phobia scale (five items) of the Fear Questionnaire (Marks & Matthews, 1979) and the Behavioral subscale (nine items) of the Lehrer-Woolfolk Anxiety Symptom Questionnaire (Lehrer & Woolfolk, 1982). Other measures included the following: Depression subscale from a Dutch version of the Symptom Checklist (SCL-90R; Derogatis,1983); and an interviewer's ratings of social phobia severity. The frequency of positive and negative cognitions in social situations was assessed by the Social Anxiety Self-Statement Inventory (Hoffman & van Hout, 1987). Personality was assessed using the Avoidant, Histrionic, Dependent, Obsessive-Compulsive, and Paranoid scales of the MCMI-I.

The researchers provided results of this study for the GSP and SSP groups, as well as for the two groups combined. Self-reported avoidance of social situations was

measured using t-tests. Scholing and Emmelkamp (1999) reported significant overall improvement at posttest ($p < .01$), in comparison with pretest, for both groups, and no significant changes from posttreatment to 18-month follow-up ($p < .01$). In accordance with Chambless et al. (1997), when the entire group was assessed at posttest, clinician rated severity at pretest significantly predicted less improvement ($r = .21$, $p < .05$). The magnitude of the relationship between depression and improvement in Scholing and Emmelkamp's study was less than Chambless et al. (1997) found ($r = .20$, $p < .05$).

In contrast with Chambless et al. (1997), Scholing and Emmelkamp (1999) found no relationship between initial avoidant traits and improvement in the total group. This appeared to be the result of an interesting phenomenon. When the subgroups were analyzed separately, avoidant traits were predictive of improvement but in opposite directions: they predicted a less favorable outcome for the GSP group ($r = .20$, $p < .1$) and a more favorable one for SSP ($r = -.27$, $p < .1$). Although these findings were not significant, it seems important to note that avoidant traits were working in opposite directions depending on the Axis I problem. In addition, more histrionic traits predicted less favorable outcome for the SSP group ($r = .36$, $p < .05$).

Multiple regression analysis indicated that avoidance of social situations at posttest was significantly explained by pretest scores on this same measure (21.3% of variance, $F = 19.6$, $p < .00001$). Pretest assessment of social phobia severity was also predictive of posttest avoidance (6.5% of variance, $F = 13.7$, $p < .00001$).

At 18-month follow-up, Scholing and Emmelkamp (1999) included the 18 participants who had received additional treatment between the 3- and 18-month follow-

up assessments because their inclusion was "unrelated" (p. 666). Scholing and Emmelkamp reported bivariate correlations showing pretest impairment as somewhat predictive of worse overall results ($r = .19$, $p < .1$). In contrast, dependent traits predicted modestly better results ($r = -.18$, $p < .1$). As with the posttest results, a multiple regression using avoidance of social situations as the criterion variable found pretest levels of this variable significantly predictive of 13% of the variance ($F = 10.8$, $p < .001$). In addition to this variable, only pretest impairment (4.8% of variance; $F = 7.2$, $p < .001$) and pretest dependent traits (6% of variance; $F = 8.1$, $p < .001$) were significantly predictive. Also, a decrease in the number of negative cognitions was related to a decrease in avoidance of social situations ($r = .75$, $p < .001$ at posttest; $r = .81$, $p < .001$ at follow-up).

In contrast with Chambless et al. (1997), personality disorder traits were not significantly related to residual gain scores at post-test. However, when GSP and SSP were considered separately, avoidant traits were predictive of gain scores for both but in opposite directions. GSP outcome was less favorable, whereas SSP outcome was more favorable. In effect, the results appeared to have offset one another and, when combined, looked as if there were no significant results. This phenomenon highlights the complexity of comorbidity research, with a personality disorder trait at times exerting a negative influence and at other times a positive one. It is also important to note that in this study the treatments were not the same. Although the researchers reported no significant differences between the GSP and SSP groups, it is possible that grouping them all together may have masked some specific factors related to outcome.

Merchand, Goyer, Dupuis, and Mainguy (1998) investigated the benefit of group therapy for those with personality disorder and Panic Disorder with Agoraphobia. They recruited 70 women and 11 men between 1987 and 1994 from a cognitive-behavioral group treatment program. Of these 81 participants, 36 were diagnosed with a personality disorder, and nine were diagnosed with a comorbid Axis I disorder according to DSM-III-R criteria. Those on medications were included if their medication had been stable for 4 weeks previous to treatment. Patients with depression, substance abuse, psychosis, organic mental disorder, affective disorders preceding the onset of Agoraphobia, and cluster A, Borderline, and Antisocial personality disorders were excluded.

In the initial assessment phase, psychiatric evaluations were used to establish DSM-III-R (1987) diagnoses. A psychologist blind to these diagnoses examined 20% of the cases to confirm accuracy, and sufficient inter-rater reliability was established. Next, CBT psychologists formulated a behavioral analysis treatment. Because the study was conducted in Quebec, the authors used the French translation of the Global Assessment of Severity (GAS; Mavissakalian, Michelson, Greenwald, Kornblith, & Greenwald, 1983). Other assessment measures included the Mobility Inventory for Agoraphobia (MIA; Chambless, Caputo, Jasin, Gracely, & Williams, 1985), a Fear Questionnaire (FQ), and a scale on participants' Collective Predisposition (CPS). All of these measures were reported to have good psychometric properties and strong intercorrelations. In addition, the participants' self-reported Frequency of Panic Attacks (FPAN) was assessed (Merchand et al., 1998).

Treatment was administered to nine groups of participants. Each group met 14 times over an 18-week period, with the last four sessions being held every other week. Participants were educated about agoraphobia, including the physiological responses, and each was given a self-help manual. During the first part of each session behavioral and cognitive techniques, such as relaxation and restructuring, were taught to the group in order to help them cope with anxiety evoking situations. The second part of each session (1 hour) consisted of in vivo and cognitive homework review, planning for the next week, and presentation of relevant advice. The remaining time (1.5 hours) was spent in a therapist assisted in vivo exposure process. The treatment focused on the importance of "self-directed, gradual, prolonged in vivo exposure in order to decrease or eliminate agoraphobia and anxiety symptoms" (Merchand et al., 1998).

ANOVA results reported by Merchand et al. (1998) indicated that the participants' scores on assessment measures improved from pretest to posttest and through follow-up ($F = 143.51$, $p = .0001$). Although scores on the FPAN were also significantly improved on both occasions, the results at follow-up were significantly lower than those at posttest (F 5.32, $p = .02$). Results for medication and no medication groups were not significantly different.

Merchand et al. (1998) also employed ANCOVAs (2 groups x 2 moments) to assess personality disorder/no personality disorder differences at post treatment and follow-up. Pretreatment scores were used as covariates. The first ANCOVA for MIA scores found a significant group effect ($F = .09$, $p = .0414$), with the pretreatment scores but not with the time effect. This indicates that pretreatment scores were different

between groups with the no personality disorder group having a lower mean, but that they did not change at different rates. The group by time interaction was also noteworthy (F = 2.565, p = .056). At posttest, the no personality disorder group had a lower mean (2.15, p = .0173). This difference disappeared at follow-up (p = .1412). The group main effect was also significant on the CPS (F = 3.278, p = .037) and the FQ (F = 6.333, p = .007). The no personality disorder group showed more improvement that the personality disorder group in agoraphobic avoidance and frequency of panic attacks, self-evaluated anxiety and avoidance during certain tasks, and anticipated anxiety about specific situations. On agoraphobic avoidance and frequency of panic attacks, those with personality disorders stopped improving at posttest while those without personality disorders continued to improve.

For FPAN, subjects were divided by baseline FPAN scores (low = 41, high = 40 subjects) because an interaction between pretest level and groups occurred. The no personality disorder/personality disorder main effect was significant (F = 6.52, p = .006), as was the no personality disorder/personality disorder by baseline FPAN interaction (F = 3.998, p = .025). The high FPAN/personality disorder group mean (post and follow-up scores combined) was significantly higher than other means, indicating this as a more problematic combination. However, Merchand et al. (1998) also noted "there is no difference on FPAN (post and follow-up) between personality disorder and no personality disorder when baseline frequency of FPAN is low" (p. 19).

Merchand et al. (1998) concluded that no personality disorder and personality disorder patients generally responded well to treatment, but that "patients with a

personality disorder improve less than patients without a personality disorder. Moreover, on how Agoraphobia limits social mobility, the no personality disorder continue to improve at follow-up, while the personality disorder stop improving at post-test level" (p. 20). In addition, high frequency of panic attacks prior to beginning treatment, especially in those with a personality disorder, was important, and this combination suggests a lowered responsiveness to treatment.

Overall assessment procedures in this study appear problematic. For example, structured interviews were not administered, and the number of confirmatory blind ratings was arguably not enough. In addition the authors did not employ standardized personality disorder measures. Further assessment of personality disorder and Axis I severity and "cut-off" levels would have been helpful to this study.

Another factor that must be considered is that many of those with severe personality disorders or other Axis I disorders were excluded. Participants with personality disorders were helped by the treatment, but they still evidenced significantly more psychopathology at post-treatment. This brief therapy was helpful but not sufficient to effect a desirable degree of change in the lives of those with personality disorders. The effectiveness and cost-effectiveness of CBT for this population would likely be improved by "developing specific intervention strategies for personality disorder" patients (Merchand et al., 1998, p. 20).

From a slightly different perspective than the above reviewed studies, McKay, Neziroglu, Todaro, and Yaryura-Tobias (1996) examined changes in personality disorder as a result of behavior therapy treatment for Obsessive-Compulsive Disorder (OCD). In

this study, a sample of 21 patients diagnosed as having OCD (12 males, nine females) was assessed independently by a psychiatrist and a psychologist according to DSM-III-R (1987) criteria. Numerous comorbid conditions were identified, including Major Depression (47.6%), Generalized Anxiety (38.1%), Substance Abuse (23.8%), and Trichotillomania (14.3%).

To aid in diagnosis, two assessment instruments were used (McKay et al., 1996). The Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman, et al., 1989) is a 10-item scale that yields obsession, compulsion, and total scores. The Structured Clinical Interview for DSM-III-R personality disorders (SCID-II; Spitzer, Williams, Gibbon, & First, 1990) was used to assess all three personality disorder clusters, as well as Passive-Aggressive Personality Disorder and Self-Defeating Personality Disorder, which are under investigation. The researchers assigned mixed personality disorder when all but one symptom for two separate personality disorders were met. All patients initially met criteria for at least one personality disorder, and eight of the sample had four or more. Most personality disorders were from cluster B, closely followed by cluster C, while cluster A disorders were diagnosed less frequently.

After assessment, all patients in the study received therapy consisting primarily of in vivo exposure and response prevention (ERP) and cognitive therapy. The entire treatment lasted four weeks, with sessions occurring 5 days per week. Session duration was 90 minutes, with the first 60 consisting of ERP and the remaining 30 aimed at reducing faulty beliefs with cognitive therapy.

To assess treatment outcome, McKay et al. (1996) used a "Reliable Change Index" (RCI), which is a measure comparing pretest minus posttest scores and the distribution of the difference between them if there was no change. When examining the Y-BOCS and RCI from pretest to posttest, the sample as a whole showed significant change ($t = 7.02$, $p < .001$). Although a Wilcoxon matched-pairs signed test showed significance in the mean number of personality disorders at posttest ($z = 2.65$, $p = .008$), an examination of the actual numbers showed a reduction from 3.7 at pretest to 2.8 at posttest. Even though this is a significant reduction, the 2.8 mean still indicates significant psychopathology. At posttest, five patients no longer met any personality disorder criteria, four met criteria for one, three patients had between two and four, and eight met criteria for more than four.

In addition to these results, McKay et al. (1996) found a trend toward a relationship between number of pretest personality disorders and treatment outcome ($r = -.41$, $p = .07$), with a greater number of personality disorders being associated with poorer outcome. Greater personality disorder pathology was associated with considerably more OCD symptoms at the end of treatment.

A problem with this study is that results were measured only at pretest and posttest. One wonders what the stability of results would have been over a follow-up period of three to six or twelve months. In addition, personality disorder status was measured categorically, in a "yes-no" fashion. If participants with sub-diagnostic personality disorder features had been included in the Axis II group instead of the Axis I

group, the difference between the Axis I and Axis II groups may have been more significant.

McKay et al. (1996) concluded that improvement on Axis I symptoms can occur in those with personality disorders. They also suggested that OCD and personality disorder symptoms overlap and that as improvement is made on Axis I symptoms, Axis II symptoms also improve. They reported that as OCD decreases, "Axis II symptomatology subsides" (p. 55). Although Axis II symptomatology did "subside," personality disorder pathology was evident at posttest and was related to outcome. In fact, the researchers later added that "the mean change was small" (p. 55). This would seem to indicate that personality disorder symptoms do not "subside" to any great extent with the treatment of OCD. In addition, the issue of accurate diagnosis is also relevant when reviewing these results. It is possible that what appeared to be a personality disorder may have been accounted for by acute Axis I symptoms. When these Axis I symptoms improved, it appeared as if assumed personality disorder symptoms were also reduced or even disappeared.

The results of this study suggest that diagnosing a personality disorder in the presence of acute Axis I symptomatology is not recommended, as this may lead to inaccuracy in diagnosis. Perhaps the reason the mean number of personality disorders decreased somewhat is that some symptoms categorized by researchers as personality disorder were actually the result of acute Axis I symptomatology. Axis I treatment, then, would seem to make a personality disorder "go away", when the treatment may have been helping to reduce Axis I symptoms. Other researchers (e.g. Leibbrand, Hiller & Fichter

(1999a, 1999b) wisely waited for a few weeks after the Axis I diagnosis to assess personality disorder status and symptoms. This procedure helps to avoid confounding the conditions and avoid outcomes that may not reflect true changes. Finally, while the sample as a whole reflected improvement on obsessive-compulsive symptoms, the design did not include diagnoses of specific personality disorders. It is possible that some Axis II constellations are more responsive than others to methods used in Axis I treatment. Despite this, it was still noted that greater Axis II pathology adversely affected treatment (McKay et al., 1996).

Feske, Perry, Chambless, Rennenberg, and Goldstein (1996) examined the outcome of treatment for two groups of participants with generalized Social Phobia and Avoidant Personality Disorder. Although clients were not significantly different with regard to demographics, those with personality disorders demonstrated more severe pathology on the measures administered in the study. Fifty-eight participants were treated, but only 48 provided posttest data and 42 of those provided follow-up data. Five of the six who failed to provide the follow-up information were participants diagnosed with Avoidant Personality Disorder.

Patients were initially evaluated using the SCID I and II interviews. Several self-report instruments were completed at pretreatment, posttreatment, and at a 3-month follow-up. Three measures used were the BDI (Beck & Steer, 1987), the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushane, 1970), and the Social Adjustment Scale, Self-report Version (Weissman & Bothwell, 1976). In addition, the Grambill and Richey Assertion Inventory (Grambill & Richey, 1975), the Personal Self Scale of the

Tennessee Self-Concept Scale (Roid & Fitts, 1988), and the Social Phobia and Anxiety Inventory (Turner, Beidel, Dancu, & Stanley, 1989) were included (Feske et al., 1996).

Treatment conditions in this study were not highly controlled. Most clients received individual therapy prior to and after participating in the study, and treatment format and length varied (Feske et al., 1996). Treatment was group-based and included education, relaxation, systematic desensitization, role-play, and group feedback. Forty-eight participants received treatment in two different formats and provided posttreatment data. Seventeen participants received 32 hours of group treatment over 4 days, 2 consecutive days followed by 2 more consecutive days the following week. The other 31 participants received 42 total hours of treatment. They were treated on 2 consecutive days, followed by 1 day one week later, and then by six weekly sessions.

To examine the effect of Avoidant Personality Disorder on treatment, the researchers employed MANOVAs by diagnostic group with the various assessment instruments as dependent variables (Feske et al., 1996). Separate ANOVAs were used for the SPAI, as this measure was given to only 31 of the participants. At posttest, significant main effects were noted for the avoidant participants compared with non-avoidant participants (F [1, 46] = 16.86, $p < .001$). When specific results were more closely examined and pretreatment levels of severity controlled for, the avoidant clients fared significantly less well on only the PSS (F [1, 45] = 5.05, $p = .029$) and the STAI-Trait (F [1, 45] = 6.92, $p = .012$) measures. Significant main effects for avoidant vs. non-avoidant groups were also noted at the 3-month follow-up period (F [1, 40] = 5.87, $p = .02$).

However, the rate of change over time for the groups was not significantly different. The same non-significant rate of change was found for the groups using the SPAI results.

As the BDI (Beck & Steer, 1987) scores were significantly related to the other measures, the researchers controlled for depression and re-evaluated the results. When depression was statistically removed from the results the avoidant/non-avoidant differences were no longer significant on any of the measures. These results were similar for the posttreatment and follow-up occasions.

Overall, this study presents mixed results. The researchers indicated that treatment was helpful for those with personality disorders. However, those with Avoidant Personality Disorder were worse both to begin with and at the end. From a human well-being perspective, they still had high levels of suffering. Also, even though depression appeared to account for some of the differences, it is important to note that a more depressive or dysthymic presentation and style appears to be part of the Avoidant Personality symptomatology.

Finally, Dressen, Hoekstra, and Arntz (1997) studied 43 Dutch patients in the Netherlands, 16 men and 27 women, who completed treatment for OCD. Of these, 13 had one personality disorder and 9 had two or more. There were no significant group differences in the duration or severity of Axis I symptoms at pretest. Treatment consisted of random assignment to 12 sessions of exposure with response prevention (n = 16), cognitive therapy (n = 14), or a cognitive-behavioral therapy combination (n = 22).

The SCID for Axis I and SCID-II for personality disorders (Dutch translations) were administered to the study participants. Along with these, numerous specific

symptom and behavioral scales were given. Both the patients and therapists were blind to personality diagnoses. Participants were assessed at pretest, posttest, and at 1 and 6 month follow-up periods. In order to minimize the number of dependent variables, the researchers conducted a factor analysis that yielded general composite scores. Outcome evaluations were conducted with respect to pretest scores.

As there are a variety of ways to measure personality disorders, Dreesen et al. (1997) looked at both categorical (specific personality disorder category) and dimensional (total personality disorders, number of traits) diagnoses. In the results, the overall effect of categorical personality disorder (Avoidant, Dependant, Obsessive-Compulsive, Paranoid, or Schizotypal) using two-tailed t-tests was that the presence of one or more personality disorders was not related to overall outcome ($p > .31$) at posttest or at either follow-up measure. There was a tendency for those with Schizotypal Personality Disorder to improve less ($p = .11$).

Stepwise regression analyses showed that, for dimensional personality status, the schizotypal trait score ($t = 2.22$, $p = .03$) and the self-defeating summary score ($t = 2.23$, $p = .03$) were the only scores significantly related to higher pretest scores. The greater the number of these features, the higher the pretest scores. Although these features were related to more psychopathology prior to treatment, no trait scores were significantly related to treatment outcome. Dreesen et al. (1997) concluded that both those with and those without personality disorders benefited equally from treatment for OCD and that there was no robust impact of treatment for specific personality disorders.

Although this study strongly suggests that obsessive-compulsive disorder can be treated effectively in those with personality disorders, a number of caveats should be mentioned. For example, of nine dropouts in the study, seven had a personality disorder. Although the authors said there was no significant difference between completers and non-completers, there was a strong relationship between dropping out and having a personality disorder. Also, 56% of the participants needed more treatment 1 month after the study. This calls into question the effectiveness of the treatment overall. Third, no Schizoid, Narcissistic, Borderline, Histrionic, or Antisocial personality-disordered subjects were included, thus limiting the generalizability of the results. In the title "Personality Disorders Do Not Influence the Results..." perhaps the researchers should have first inserted the word "Certain." The researchers also indicated that while all participants improved at a similar rate through follow-up, their improvement rates might have diverged at a later time.

On obsessive-compulsive and behavioral tests, categorical personality disorders showed a trend toward significance for those with Schizotypal Personality Disorders showing less improvement at first follow-up only ($t = -1.73$, $p = .09$). For the dimensional disorders, there was a trend toward significance for passive-aggressive traits and the total number of Axis II traits at posttest showing significantly less improvement ($t = -2.02$, $p = .05$ and $t = -1.84$, $p = .07$).

In summary, a broad look at the current studies suggests that the treatment of Axis I conditions in those with personality disorders holds promise. However, this statement is made with caution, as results were not clear-cut. Personality disordered subjects were

often more symptomatic at both pretreatment and posttreatment, and their personality conditions may have been left largely unresolved.

The diagnostic process in these studies was problematic, as there was no uniformity of assessment instruments or ways of measuring Axis II disorders (categorical or dimensional). Certain personality conditions (e.g., avoidant) were often associated with less improvement or needed further treatment, whereas other conditions (e.g., passive-aggressive) showed more improvement. A general assessment of these studies indicates that different disorders, assessed in different manners, interacting with different treatments and Axis I symptoms produced different outcomes.

Somatoform Disorders

Elliot, Jackson, Layfield, and Kendall (1996) evaluated the impact of personality disorder on outpatient chronic pain treatment. Participants, 50 men and 51 women, were predominantly Caucasian and presented with a variety of pain conditions such as low back (n = 45) and cervical (n = 21) pain.

To assess comorbid personality disorder, Elliot et al. (1996) utilized the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1987). In order to guard against overdiagnosis, a conservative base rate of 85 on the MCMI was used as the cutoff point for most prominent characterological style.

In addition, three other measures were used. The BDI (Beck & Steer, 1987) was used to assess levels of depression at admission and upon completion. An overall symptom change score (BDI 1 - BDI 2) was computed. Other Axis I conditions were not directly assessed. Using a seven-point Likert scale, participants rated their pain intensity

at admission and discharge. As with the BDI, pain change from admission to discharge was assessed (Pain 1 - Pain 2). Finally, Range of Motion (ROM) was assessed by a physical therapist, and total days in treatment were recorded. Unfortunately, not all of this information was available at discharge for all subjects, which may limit the generalizability of any conclusions drawn from the results.

MCMI results indicated that 65 of the 99 participants referred for evaluation qualified as having a personality disorder. Elliot et al. (1996) found that thirty-five percent of these were in cluster C, which was significantly different from what would be expected by chance ($\underline{x}^2$ [3] = 19.82, $\underline{p} < .001$). At admission, one-way ANOVA results showed that the clusters showed significant differences in self-reported symptoms of depression ($\underline{F}$ [3, 89] = 3.71, $\underline{p} < .050$. The cluster C group had a higher BDI mean than the cluster B and the no personality disorder groups. The higher cluster C mean was largely accounted for by the Passive-Aggressive scale ($\underline{R}^2 = .51$). One-way ANOVA results indicated an association between personality disorder and initial pain ratings, and post-hoc tests revealed cluster B as having the lowest pain ratings. However, a comparison of means suggested less than one point actual difference. No significant differences were found on ROM ratings.

A relationship between personality disorder and the discharge variables was found. Although an ANOVA indicated no overall relation between personality clusters and BDI scores at discharge, the Avoidant scale was associated with significantly higher BDI scores in a step-wise regression equation ($\underline{F}$ [1,56] = 12.11, $\underline{B} = .42$, $\underline{R}^2 = 18$). Another one-way ANOVA found no overall effect for personality disorder clusters on

Pain Ratings. However, step-wise regression analyses in this case indicated that the Narcissism scale ($\underline{F}$ [1,51] = 5.08, $\underline{B}$ = .30, $\underline{R}^2$ = .09) and Histrionic scale ($\underline{F}$ [1,50] = 4.94, $\underline{B}$ = -.36, $\underline{R}^2$ = .08) were predictive of higher discharge pain. The relationship between the Narcissism and Histrionic scales and discharge pain was reported by the researchers as being statistically significant.

Elliot et al. (1996) reported that the personality disorder groups showed no significant overall relationship between days in treatment and ROM scores. However, the Borderline (-.26) and Paranoid (-.28) scales "had the highest correlations with days in treatment" (p. 228). Together they were entered into a block regression and accounted for 12% of the variance in days in treatment ($\underline{F}$ [2,87] = 6.17, $\underline{p} < .01$). For ROM, post hoc analysis showed that the no personality disorder group ($\underline{M}$ = 93.9) had significantly better ROM scores than did the cluster C group ($\underline{M}$ = 85.95). Regression analysis, however, showed no single personality disorder scale to be a significant predictor of ROM scores.

Elliot et al. (1996) also measured personality disorder in relation to Response to Rehabilitation. A one-way ANOVA indicated no significant differences between personality disorder clusters and change in BDI. However, a regression analysis showed higher Passive-Aggressive scores to be associated with greater BDI improvement ($\underline{F}$ [1,55] = 6.61, $\underline{p} < .05$, $\underline{B}$ = .33, $\underline{R}^2$ = .11). This group had higher BDI scores at admission and may have had more room for improvement during treatment.

For the change in pain variable, a one-way ANOVA showed a significant effect for personality disorder cluster ($\underline{F}$ [3, 46] = 3.14, $\underline{p} < .05$). Cluster B, as examined by post-hoc least square means procedure, had a mean score of -.33. When compared to cluster A

(M = 1.17), cluster C (M = .59), and normal profiles (M = 1.17), cluster B showed less improvement in pain ratings and actually showed a slight increase in the mean amount of pain over the treatment program. Also, higher Narcissism scores were significantly associated with less improvement in pain ratings as noted in regression analysis (F [1,48] = 9.63, B = -.41, R^2 = .17).

In summary, personality disorder diagnoses did interact with treatment effects in this study. Borderline and paranoid disorders were correlated with fewer days in treatment (r = -.26, r = -.28, respectively). These results indicate that patients with these personality disorders were exposed to less treatment. Also, higher Passive-Aggressive scores were associated with the greatest improvement on the BDI. Perhaps these patients were motivated for treatment, but it is also worth noting that their initial BDI scores were higher than those of the other groups. Finally, the group with cluster B disorders did not show improvement on the change in pain variable. They actually showed a slight increase in pain over the course of treatment.

Leibbrand, Hiller, and Fichter (1999a, 1999b) studied the influence of personality disorder on somatoform disorders. Their first study (Leibbrand, Hiller, and Fichter, 1999a) consisted of an initial sample of 126 German inpatients. Persons with schizophrenia and substance abuse disorders were excluded, and 105 completed the study. Ninety-nine of the patients had somatoform disorders, and 70 were female. Of those in the study, 56 met criteria for a personality disorder. Over 50% of these had an avoidant or obsessive-compulsive disorder, and 66% had at least one cluster C personality disorder.

To assess psychopathology, the researchers used a number of methods. Somatic and depression rating scales, the Symptom Checklist (SCL-90R), and a 45-item measure standardized with somatoform and other mental disorders were employed (Leibbrand et al., 1999a). In addition, diagnostic interviews were used and were guided by the Structured Clinical Interviews for DSM-IV Axis I disorders and personality disorders (SCID I and II) as well as the International Diagnostic Checklist for DSM-IV and the personality disorder version of this interview (IDCL P).

Leibbrand et al. (1999a) took care to control for the effects acute symptomatology and severe depression can have on personality disorder presentation by interviewing for personality disorder diagnosis 4 weeks after admission. Based on diagnostic procedures, patients were assigned to one of five subgroups: somatoform patients (SFD) with minor Axis I comorbidity, SFD patients with Major Depressive Disorder (MDD) and any specific anxiety disorder (ANX), SFD patients with personality disorder but minor Axis I difficulties, SFD patients with MDD and ANX and any personality disorder, and non-SFD patients with only minor Axis I morbidity. The patient groups did not differ demographically.

Leibbrand et al. (1999a) gave all patients cognitive-behavioral therapy. The therapy seemed, again, to be a package rather than simple weekly therapy. The researchers partially based treatments on standardized guidelines for treating somatoform symptoms, and supervision was provided for all therapists administering the treatment. Participants received individual and problem-focused group therapy, as well as standardized treatment for specific pathology such as social skills, depression, anxiety, or

pain treatment. Also, "further psychotherapeutic and physiotherapeutic treatments" (p. 204) were offered. Therapy was planned specifically for each patient by an expert, and length of treatment was suited for each patient's needs. Leibbrand et al. provided what patients needed rather than a standard 10-session therapy. This method is different from most of the research reviewed thus far and appears to be closer to the typical practice of clinical work.

Overall, there was a significant improvement in symptoms. None of the comorbid conditions (MDD and ANX, personality disorder or a combination) had significantly worse outcomes than somatoform patients with minor Axis I pathology. In addition, the MDD, ANX, and personality disorder combination showed the highest effect size on four of six symptom measures.

Although this study is suggestive of positive results, certain potential limitations should be noted. For example, only one somatoform patient had no additional diagnosis. Because of this, the effect of comorbidity on treatment remains unclear. Would others without additional diagnoses respond better or more quickly to treatment? In addition, there was no breakdown of different cluster personality disorders. The possibly exists that, for example, cluster C participants improved but cluster B participants did not, with the combined result suggesting that personality disorder makes little to no difference.

It must also be recognized that treatment was a package that was tailored to individual needs in both style and time frame. This is different from many of the above reviewed studies. The researchers suggested, "Multiple therapies may be a promising way to deal with complex psychopathology and high levels of comorbidity" (Leibbrand et al.,

1999a, p. 208). Not all patients had to fit into rigid, predetermined treatment guidelines. This actually argues against simple, specific, and brief treatments for comorbid disorders.

Leibbrand, Hiller, and Fichter's (1999b) second study during the same year was with a group of 119 German inpatients with somatoform disorders (SFD), 97 of whom completed all questionnaires. Those with eating disorders, schizophrenia, severe depression, and alcohol/substance abuse disorders were excluded. Sixty-seven of the patients met criteria for at least one personality disorder. Patients in the study were assigned to one of the following six sub-groups for the purpose of analysis: SFD without personality disorder, SFD with one cluster C personality disorder, SFD with multiple cluster C personality disorders, SFD with cluster A or B personality disorders, non-SFD with personality disorders (control), and non-SFD/non-personality disorder controls.

Patients were assessed with various health, somatic and depression rating scales. In addition, diagnostic interviews were used and were guided by the International Diagnostic Checklist for DSM-IV (IDC); Hiller, Zaudig, & Mombour, 1996) and the personality disorder version of this interview (IDCL P). Leibbrand et al. (1999b) took care to control for the effects that acute symptomatology and severe depression can have on personality disorder presentation by interviewing for personality disorder diagnosis four weeks after admission. An inventory for depression severity excluded one subject with severe depression.

All patients received a cognitive-behavioral treatment package. This included individual and group therapy, standardized therapy programs that focused on specific

pathology (i.e., pain, anxiety), social skills training, progressive muscle relaxation, and additional psychological and physiological treatments.

Leibbrand et al. (1999b) stated that, prior to treatment, "a significant overall difference between the six subgroups was found only for the depression score (BDI), but no differences between two subgroups occurred in the Scheffe' tests" (p. 510). The subgroups were not found to be significantly different with respect to demographics. Of special note, however, was that the dropout rate for those with personality disorders was significantly higher than for those without personality disorders (26.9% vs. 7.7%; $\underline{x}^2 = 8.9$, $\underline{p} < .01$).

Overall, there was significant improvement, and treatment outcome did not differ significantly for the six groups. However, Leibbrand et al. (1999b) stated, "The results of the effect size analysis suggest a slightly poorer outcome of SFDs with more severe types of Axis II comorbidity" (p. 510). Those with SFDs and multiple cluster C personality disorders and with cluster A or B personality disorders did not improve on the SOMS-7 score. Those with multiple cluster C personality disorders were also the only group to have significantly elevated levels of somatoform pathology compared to those with no personality disorder at the 2-year follow-up. There was also only moderate improvement for multiple cluster Cs Intolerance of Body Complaints on hypochondriachal symptoms.

Although there was a slight trend for those with multiple cluster C disorders to have poorer improvement than other personality disorders, this study showed that improvement can occur for SFD patients with personality disorder symptoms. However, according to these results, "treatment outcome is only moderate with respect to

somatoform symptomotology" (Leibbrand et al., 1999b, p. 510). There were more long-term negative results for personality disorder patients, and their progress on some measures, at least in this present study, was hindered.

It is notable that many more participants with a personality disorder dropped out of the treatment. One feature often seen in those with a personality disorder is difficulty in establishing and maintaining positive relationships. Having such participants leave treatment at a greater rate suggests that the treatment was less effective for them, perhaps because of difficulties establishing a therapeutic alliance. Such results must be considered when determining whether or not personality disorders influence Axis I treatment.

In addition to their study previously reviewed in this paper, Neziroglu, McKay, Todaro, and Yaryura-Tobias (1996) also published a study on the effects of cognitive-behavioral therapy for patients with Body Dysmorphic Disorder (mean duration of 9.2 years) and comorbid personality disorders. Once again, the number of participants examined by the researchers was relatively small, with 10 female and seven male subjects (n = 17). The mean number of personality disorder diagnoses was six, with 13 of the 17 patients meeting criteria for four or more personality disorders. The subjects were concerned about various body parts, including nose and stomach. After initial assessment, all participants received 4 weeks of intensive, 90-minute cognitive-behavioral therapy sessions that occurred 5 days per week. This therapy consisted of exposure and response prevention and specific cognitive techniques aimed at challenging faulty beliefs about appearance.

Subjects were independently assessed by a psychiatrist and a psychologist, and Neziroglu et al. (1996) reported complete agreement between them. Two measures were given to the participants, including the Yale-Brown Obsessive-Compulsive scale for Body Dysmorphic Disorder (Y-BOCS- BDD; Hollander, 1991), which was administered at pretest and posttest. In addition, the SCID-II was used at pretest to assess for personality disorders (Spitzer et al., 1990). The whole sample met criteria for at least one personality disorder, and 13 had four or more personality disorder diagnoses. In addition, 94% had diagnoses from cluster C.

General results from this study indicated that, with a matched pairs t-test there was a significant pre- to post-test difference in Body Dysmorphic Disorder symptomatology ($t\,[16] = 6.40$, $p < .001$). The mean Y-BOCSBD went from 25.7 to 12.0, and Nezroglu et al. (1996) stated that there was no discernable relationship between the number of pretest personality disorders and treatment outcome. Overall, then, it seems that for these subjects, who possessed numerous Axis II disorders, the exposure-response-prevention and cognitive therapy package was helpful in reducing body dysmorphic symptomatology. As opposed to brief, weekly therapy, however, the treatment in the study was intensive and equal to 40 normal weekly sessions.

When reviewing this study's results, it seems possible that there was an over diagnosis of personality disorders. This may not be an artifact of the assessment instruments but, perhaps as with other studies, acute Axis I symptoms may have presented as Axis II symptoms. Assessing for personality disorders after acute symptoms were reduced or reassessing for personality disorders at the end of treatment may have

been helpful in this study. Would they have been fewer and, if so, would this be due to amelioration of the Axis I symptoms? In addition to diagnostic questions is the recurring issue of categorical personality disorder diagnoses (yes-no). When participants have numerous features but no Axis II diagnosis, their features may still have an influence on treatment and should thus be assessed and included in the results.

To summarize, studies of treatment for somatoform disorders in those with comorbid personality disorders suggest that treatment aimed at these Axis I symptoms is generally a worthwhile endeavor. This may be especially true when researchers employ a more intensive or individually tailored version of treatment (e.g., Nezroglu et al., 1996; Liebbrand et al., 1999a). Although comorbid personality disorders did not prohibit these treatments from lessening Axis I symptoms, they seemed to somewhat hinder progress and were related to higher dropout rates. In addition, it is notable that not all personality disorders had an equal impact on treatment, with some hindering it more and others seemingly enhancing it. The research in this area remains somewhat inconclusive with regard to the impact personality disorders have on Axis I treatments.

Major Depression

Greenberg, Craighead, Evans, and Craighead (1995) examined the effect of comorbid personality disorder on the outcome of inpatient treatment for unipolar depression. Their sample consisted of 33 women and 12 men from a research database who were mostly white and well educated. To be included, subjects must have had unipolar major depression as screened for by the Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981) or chart review. They must also have had

valid ratings, at admission and discharge, on the Montgomery-Asburg Depression Rating Scale (MADRS; Montgomery & Asberg, 1979). In addition, personality disorder cluster diagnoses, both categorical (yes-no) and dimensional (number of personality disorder symptoms), were made by using one of two semi-structured Axis II interviews: the Personality Diagnostic Examination (PDE; Loranger, Susman, Oldham, & Russakof, 1987) or the Structured Interview for Disorders of Personality (SIDP; Stangl, Pfohl, & Zimmerman, 1985).

Greenberg et al. (1995) specified little about the inpatient treatment offered. They stated that there was no "single, rigorously controlled intervention protocol" (p. 308). This prohibits drawing very specific personality disorder/treatment influences, but it offers the perspective of what might actually be found in an inpatient treatment program. In other words, interventions were tailored to the needs of individuals as may be found in "real life." The researchers asserted that the effect of comorbidity, if found in such a tailored instance, is likely important in the context of actual clinical practice.

To assess the result of treatment, Greenberg et al. (1995) used "therapeutic change," which is admission severity minus discharge severity; and "recovery," which was defined as discharge MADRS scores below 12, as dependent variables. Three separate statistical procedures were used, looking at both categorical and dimensional personality disorders. ANCOVA results showed a highly significant effect for the covariate of severity at admission for "any PD, absent/present" upon ratings of depression change ($\underline{F}$ [1,42] = 25.29, $p < .0001$), indicating that greater depression severity was associated with greater therapeutic change scores. A second 2 x 2

ANCOVA, examining the presence/absence of clusters B and C, also indicated a significant effect for the covariate of admission severity. Cluster B diagnostic status was not significant, whereas cluster C was significant (F [1,41] = 4.13, p = .0485). The diagnosis of any personality disorder, then, "was not predictive of therapeutic change in depression. Only for cluster C diagnoses did the treatment effect reach significance" (p. 313). This finding was reported as similar to that in other studies.

In addition to categorical results, dimensional ratings were also assessed and subjected to multiple regression. For the first multiple regression, Greenberg et al. (1995) entered the total number of personality disorder symptoms as the independent variable while controlling for "admit severity." Severity at admission was significant, whereas total number of personality disorder symptoms was not (t [42] = -1.01, p = .3207).

Next, dimensional scores for each of the three personality disorder clusters were entered, while controlling for admit severity. Severity of depression at admission and number of cluster A symptoms were significantly related to outcome (t [42] = -2.34, p = .0249). Number of cluster B and C symptoms was not significant. Increasing cluster A symptoms were associated with poorer therapeutic change and response to treatment. In contrast to categorical findings, cluster C was not predictive of outcome in the multiple regression.

Finally, data were examined using a logistic regression and a dichotomized depression measure based on scores of 12 on the MADRS. Admit severity was also used as the covariate. The only result which approached significance was the effect of dimensional cluster A symptoms (x^2 [1, N = 43] = 3.3189, p = .068). In conflict with

other results, admit depression severity ($p = .833$) did not predict dichotomized outcome ratings and may not generalize across different outcome measures. Cluster B was associated with slightly better response to treatment. The lack of overall personality disorder influence may be due, in part, to the improvement trend in cluster B, offsetting or canceling out the effects of the other clusters. In effect, they may have balanced one another by effects moving in opposing directions.

This study seems to demonstrate "a significant Axis II-comorbidity effect for change in depression among inpatients" and "that clusters A and C predicted a poorer response to treatment, depending on whether dimensional or categorical ratings were used in statistical analyses" (Greenberg et al., 1995, p. 317). Greenberg et al. highlighted that different results may thus emerge with different measures of outcome. Even the apparently robust finding that depression severity at admission highly influences outcome was not seen in all three analyses. The important influence of research design on research findings becomes apparent in this context. The researchers also contended that dimensional ratings for personality disorder (and perhaps Axis I disorders) are more appropriate for the study of personality disorder and comorbidity. It is possible that different personality disorder symptoms vary in the impact they have on treatment outcome.

The effects of personality disorder on depression recovery have also been examined with the use of electroconvulsive therapy (ECT) for those who are severely depressed. Casey, Meagher, and Butler (1996) investigated the role of personality in recovery from depression, "particularly in relation to social function" (p. 241). Forty

patients meeting DSM-III-R (1987) criteria for MDD and requiring ECT were included. The Hamilton Rating Scale for Depression (HAMD; Hamilton, 1967) was used to assess severity of depression in those for whom the diagnosis had already been made. In addition, the Social Functioning Scale (Remington & Tyrer, 1979) was used to measure this construct. Assessment occasions for these instruments were at entry to the study, at discharge, and at six-week increments post-discharge for a six-month period. At intake, the personality disorder/no personality disorder groups were not significantly different with regard to scores on these tests. This differs from many other studies, where those with personality disorders evidenced greater symptomatology.

Personality was assessed at or after discharge using the Personality Assessment Schedule (PAS; Tyrer, Alexander, Cicchetti, Cohen, & Remington, 1979), and attempts were made to interview informants (Casey et al., 1996). PAS dimensions assessed were sociopathy, obsessionality, schizoidism, and passive-dependence. The HAMD and SFS scores at discharge were used to indicate short-term response to ECT. The course of recovery, or "outcome," was broadly rated on a three point ordinal scale over 12 months: no change or reduction in antidepressant medication, changes in antidepressants, and change of status to day or inpatient care.

Using t-tests for categorical assessment of personality on discharge measures, the researchers found that HAMD scores at this assessment time were significantly higher in the personality disorder group (16.7 vs. 9) ($t[35] = -2.16$, $p < .05$). Casey et al. (1996) indicated that "An even greater discrepancy was shown for the SFS scores at discharge (14.3 and 32.29, respectively; $t = -2.84$, $df = 35$, $p = .01$)" (p. 242). There were no

significant differences between personality disorder/no personality disorder readmissions during the 12-month follow-up period.

Casey et al. (1996) also implemented multiple regressions to assess the contribution of personality disorder to outcome. For the first regression, categorical personality disorder status (yes/no) was one of the independent variables, along with each of the previously mentioned personality dimensions and other variables, and SFS was the dependent variable. The researchers stated, "Up to 62% of the variance can be explained by this regression equation" (p. 242) and that most of this variance was derived from personality-related variables.

The second regression used outcome as the dependent variable, and "none of the variance in outcome at 1 year was explained by this analysis" (Casey et al., 1996, p. 243). However, when personality disorder/no personality disorder outcomes were separately examined, social function at discharge contributed to 27.2% of the variance in the personality disorder group.

To examine the progress of recovery and relapse, Casey et al. (1996) examined the mean HAMD and SFS scores and plotted them separately for personality disorder and no personality disorder groups. Significant differences emerged between personality disorder and no personality disorder at discharge and the first follow-up. However, these disappeared in the assessments thereafter. The researchers concluded that the personality disorder group was helped by treatment but that they recovered at a slower rate than the no personality disorder group.

The personality disorder group in this study was more symptomatic and dysfunctional at discharge than the no personality disorder group (Casey et al., 1996). Personality disorder impacts early symptomatic recovery, and social recovery problems are even more prolonged. The results from this study indicate that personality disorder has some effect on the recovery from severe depression after ECT, especially in the early stages of recovery. The differences found between personality disorder and no personality disorder, the researchers stated, could not be attributed to differences in initial depression severity. No information was provided regarding how many patients received treatment during the follow-up period, but many may have.

The measures in this study were self-report. Although this has the benefit of being "value-free" (Casey et al., 1996, p. 244), patients may lack insight into their plights, and structured or semi-structured instruments would also have increased the strength of conclusions.

Casey et al. (1996) concluded that personality disorder did not contribute to 12-month outcome. However, the way in which outcome was measured, by medication changes and rehospitalization, is plagued with difficulty. First, there was no way to tell if further treatment was obtained, and this alone could have kept patients better. In addition, changes in medications and rehospitalization seem extremely general and broad as measures of outcome over time, and they are poor indicators as to whether significant pathology still exists. In fact, symptoms and social difficulties can be and often are present in those who are never hospitalized. Better measures, such as specific symptom

inventories and clinical interviews, would have provided a much clearer set of data to be analyzed than the particular categories used by the researchers.

In 1995, Hardy et al. implemented psychodynamic-interpersonal and cognitive-behavioral (anxiety control, restructuring, job-strain, and self-management) package treatments for depression. A total of 114 patients, 27 of whom had at least one cluster C personality disorder, were treated. Five therapists of varying experience participated in weekly group supervision and administered the manualized treatments, with half of the clients receiving 8 weeks and the other half receiving 16 weeks of therapy.

Although the personality disordered and non-personality-disordered groups did not differ significantly with respect to demographics, there were numerous rule-outs. Those with a continuous 2-year history of psychiatric disorder, those who had had more than three sessions of formal psychological treatment within the past 5 years, or those who had had a significant change in medication within the previous 5 years were excluded from the study. Psychotic, manic, and obsessional patients were also excluded. Other clusters of personality disorder were not noted (Hardy et al., 1995).

According to Hardy et al. (1995), several assessment instruments were administered on more than one occasion. Assessment measures used for outcome were administered at the beginning of treatment, the end of 8 weeks for one group, at the 3-month follow-up for the 8-week group and end of treatment for the 16-week group, at 3-month follow-up for the 16-week group, and after 1 year for all subjects.

Measures used for depression and other symptoms were the BDI (Beck & Steer, 1987), Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1983), and Present State

Examination (PSE; Wing, Cooper, & Sartorious, 1974). Social, interpersonal, and self-esteem measures included were the Inventory of Interpersonal Problems (IIP; Barkham, Hardy, & Startup, 1994), Social Adjustment Scale-Modified Version (SAS-M; Cooper, Osborn, Gath, & Feggetter, 1982), and a measure of self-esteem (SE; O'Malley & Bachman, 1979). Personality disorders were assessed with an abbreviated version of the Personality Disorder Examination (PDE; Loranger et al., 1991).

Results of this study indicated that personality-disordered clients had significantly higher levels of dysfunction at the beginning of treatment on most assessment measures (Hardy et al., 1995). Overall outcome for the psychodynamic-interpersonal condition indicated that personality-disordered clients did significantly less well on the BDI (F [1, 46] = 3.99, $p = .05$) and SCL-90-R (F [1, 45] = 14.56, $p < .001$). There was a marginal difference on the PSE ($p = .10$). Only at the end of treatment were personality-disordered clients significantly higher on IIP, (F [1, 51] = 4.46, $p < .04$). The cognitive-behavioral group evidenced no significant broad differences between groups on any outcome measures.

Study results also showed an interaction between personality disorder and depression. Using an ANCOVA, Hardy et al. (1995) found this interaction to be significant on the SCL-90-R (F [1, 95] = 4.07, $p = .05$) and approaching significance on the BDI ($p = .13$). The interaction with depression was such that the personality-disordered who were more severely depressed had poorer outcome scores on all measures except for the IIP.

In regard to differences between personality disorder and no personality disorder groups, Hardy et al. (1995) found no overall significant difference in outcome over eight or 16 sessions of treatment. Of interest, however, was that at the end of treatment, eight-session personality disorder clients did worse than eight-session no personality disorder clients on the BDI (F [1,52] = 4.55, p = .038). In addition, personality disorder clients did worse in eight sessions than in 16 (F [1, 21] = 8.21, p = .009). These differences disappeared at both follow-up assessments.

Hardy et al. (1995) drew numerous conclusions from this study. For example, they suggested that those with both Axis I conditions and personality disorders respond better to more structured and focused cognitive and behavioral interventions. Psychodynamic-interpersonal treatment for such clients was deemed not to be conducive to dealing with problems in a stepwise manner or providing relief for specific depressive symptoms prior to addressing personality-related issues. Hence, symptom reduction would not be addressed as quickly or deliberately.

Although personality-disordered clients responded at essentially the same rate as those without personality disorders, Hardy et al. (1995) stated that the personality-disordered were overall more severe both prior to and after treatment. Whereas brief cognitive-behavioral treatment was indeed helpful for depressive symptomatology, it did not alleviate the plethora of problems with which such persons live on an ongoing basis. Also, personality disordered clients appeared to respond more slowly overall. Despite this, it seems that unless psychodynamic-interpersonal treatment is very specific and focused, CBT may be more helpful initially in alleviating symptoms.

Finally, it must be noted how more moderate and severe clients were likely left out of the current study. Hardy et al.'s (1995) rule-out criteria were very stringent. How many comorbid clients in clinical practice have had no more than three sessions of therapy and no medicine changes in 5 years? This would seem to significantly limit the applicability of these results to current clinical practice.

To summarize, in accordance with the theme that has been developing in this paper, the three depression studies are indicative of a general thesis previously raised. Those with personality disorders and an Axis I condition, in this case depression, do indeed appear to respond to treatment and are left in a better place than they were at the start of treatment. There was a trend toward such individuals responding at a slower rate than their non-personality-disordered peers, however. Despite this, it seems worthwhile to help such persons lower their levels of depression.

Other interesting issues were raised or rekindled by these studies. Taken as a whole, the studies are reflective of the problematic procedures for outcome measurement of comorbid conditions. There was essentially no overlap in the assessment instruments used, with the three sets of researchers choosing what seemed appropriate to them. In addition, the issue of whether to measure personality disorders as categorical or dimensional was apparent. The results of choosing categorical or dimensional personal disorder ratings appear to differ. Finally, how results are approached, from the standpoint of research design and statistical procedures, is also important. For example, the three different statistics used by Greenberg et al. (1995) yielded different results with regard to how personality disorders influence treatment. This suggests that if researchers analyze

data using different methods, different or even conflicting results may be found. Also, change and recovery enter into the picture and may result in outcomes looking different in different studies. These issues were not unique to the studies on depression and will be discussed in the conclusion of this paper.

Bulimia Nervosa

Steiger and Stotland (1996) examined the effect of personality disorders on the treatment of eating disorders, primarily bulimia nervosa. Their sample included 76 patients who were monitored at 3 months, end-of-treatment, 3-month follow-up, and 12-month follow-up periods. This sample represented 71.7% of the original and was broken down into Borderline Personality Disorder (BPD), other personality disorder (OPD) and non-personality disorder (NPD) groups. The rest of the sample dropped out of treatment or failed to comply with it. The attrition rate for the BPD group was significantly higher than that of the other groups (χ^2 [2] = 9.6, $p < .01$). This may have affected the results, as borderline patients may have self-selected out of this study. Having these typically difficult patients not included could have reduced the possibility of finding significant group differences in the follow-up period. Although 76 patients completed treatment, only 43 were assessed at the 3-month follow-up and 38 at the 12-month follow-up.

In this study, eating disorders were assessed with the Eating Disorders module of the SCID-Outpatient Version, and specific eating symptoms were measured with a number of self-report measures. Personality diagnosis was assessed using the SCID-II, and comorbidity was measured by the BDI; the maladaptive-action defenses subscale of the Defense Style Questionnaire, which is sensitive to BPD-NPD differences (DSQ;

Bond, Gardner, Christian, & Sigal, 1983); and the Brief Symptom Inventory (BSI; Conte, Plutchik, Karasu, & Jarrett, 1980), which measures constructs related to borderline personality conditions (and may be sensitive to current distress). Participants were also assessed by several self-report measures related to eating disorders, such as the Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) and subscales, such as Drive for Thinness of the Eating Disorders Inventory (EDI; Garner, Olmsted, & Polivy, 1983).

Treatment in this study was outpatient in nature and included a cognitive-behavioral model with brief psychodynamic elements. Steiger and Stotland (1996) reported that treatments were not standardized. Length of therapy was flexible and lasted from 4 to 35 months, with a modal length of 8 months and a mean of 14.5 sessions. The groups were not significantly different in age, body mass, chronicity, or duration of therapy. Fifty-seven patients participated in 12-session groups; 21 had pharmacotherapy; 11 were hospitalized briefly; and nine had additional 12-week (2x/wk) day treatment. BPD patients showed a trend toward longer treatment and received more intensive services. Results should be interpreted cautiously, as differences in outcome may have been more pronounced had the amount and intensity of treatment been kept constant.

Steiger and Stotland (1996) reported results for both comorbidity and eating symptoms for treatment and follow-up periods. For comorbid symptoms treatment, MANOVAs indicated overall changes across time ($\underline{F}$ [6, 48] = 9.75, $p < .001$) and groups ($\underline{F}$ [6,100] = 4.38, $p < .002$). These results were clarified by the more specific ANOVA results. Univariate ANOVAs revealed significant differences between the borderline and

non-bordeline groups ($p < .001$). The researchers summarized the treatment results by writing that "borderlines displayed predictably more depression, borderline features, and reliance upon maladaptive defenses than did other groups" (p. 154).

MANOVA results for comorbid symptoms during the follow-up period also indicated significant differences between the treatment groups at the 3-month (F [6, 76] = 2.5, $p < .03$) and 12-month (F [6, 66] = 2.33, $p < .05$) assessments (Steiger & Stotland, 1996). These results were also clarified by specific ANOVA results. For the 3-month period, univariate ANOVAs and Newman-Keuls indicated group effects on the symptom inventory ($p < .02$) and use of maladaptive defenses ($p < .005$) and suggested a trend on the BDI ($p < .13$). At 12 months, significant effects were noted on the BSI ($p < .03$) and maladaptive defenses ($p < .003$), with a similar trend on the BDI ($p < .007$). These group effects were mainly attributed to borderline and non-borderline differences. Hence, borderline psychopathology "tended to remain persistently elevated in borderlines throughout treatment and follow-up" (p. 155).

Steiger and Stotland (1996) found somewhat different results for eating disorder symptoms. For treatment results, a MANOVA found no overall differences but a trend toward general group differences (F [10, 106] = 1.73, $p < .09$) and differences at various assessment times for the groups (F [20, 96] = 1.57, $p < .08$). ANOVAs, however, did provide significant results, indicating higher and thus more pathological scores on eating and Drive for Thinness measures for the BPD group.

At follow-up, there were no overall significant group differences on any measures (Steiger & Stotland, 1996). ANOVAs suggested trends in the areas of eating ($p < .09$) and

Drive for Thinness ($p < .11$) at the 3-month follow-up and Drive for Thinness ($p < .06$) at the 12-month follow-up. There was also a tendency toward less abstinence in bulimic behaviors at the 12-month follow-up.

Steiger and Stotland (1996) did not employ standard treatments or time limits. Once again, while this may limit conclusions, it is highly applicable to the way most psychotherapy is conducted. In addition, the BPD group suffered a significantly higher dropout rate, which left more from this group untreated. This dropout rate affected the group differences because the more severe patients left treatment.

The differences in eating symptoms appeared to be related to "more entrenched pursuit of thinness" (Steiger & Stotland, 1996, p. 157). Even if the results between groups were not statistically significant, those with borderline personality disorder were still higher scoring on all eating measures. As previously stated, they were also more pathological overall.

As with the other studies reviewed, symptom-focused treatment for borderline personality disorder patients with eating disorders has merit and should not be disregarded. Personality disorders did not prevent some measure of symptom relief. However, such symptom-focused treatment does not seem sufficient. Personality disordered patients were still more pathological on all measures and did not remit in their perceived need to be thin, which could leave them more susceptible to problems in the future.

Finally, it must be noted that symptom reduction in this study was implemented through a treatment regimen characterized by clinical decisions regarding treatment

methods and length. This is in contrast to other studies reviewed in this paper that administered treatment in a brief, structured manner. Such a reduction in eating symptoms may have occurred because Steiger and Stotland (1996) tailored their treatment to the patients instead of using brief, "one size fits all" methods. Even with this tailored treatment and reduced eating symptoms, a number of Axis I and II symptoms remained unchanged and the Axis I-focused therapy seemed effective but not sufficient.

A Proposed Alternative

Monson, Odland, Faugli, Daae, and Eilertson (1995) conducted an outcome study in Norway where they treated 25 patients with primarily mood (n = 13), anxiety (n = 5), and psychotic disorders (n = 4) who also had personality disorders (10 being rated "severe"). Assessment instruments for symptoms, social adjustment, affect consciousness, health-sickness ratings, education, work, and use of medical services were administered. The primary treatment was an object relations/self psychology model and was given for as long as was indicated. This treatment ranged from five months to three and one-half years in duration (M = 2 years). The treatment focused on the therapy relationship, emotional awareness, processing, and tolerance, and more direct and adaptive emotional expression.

Over a total of seven years from treatment beginning to final follow-up, Monson et al. (1995) found statistically significant and marked changes in the patients' ability to tolerate intimate relationships, their socioeconomic status, and reduced use of health and social services. Seventy-six percent also showed no meaningful Axis I symptoms at termination. The treatment offered was aimed both at lessening symptoms and addressing

character change, and it was allowed to continue until treatment was no longer indicated. This brought relief in both Axis I and Axis II disorders and appeared to have saved money for the health care system. Such treatment methods for this complicated patient population offer significant promise. Others (e.g., Linehan, 1993) have also embarked on similar work. Longer term and more flexible approaches that specifically address both Axis I and Axis II disorders deserve further study in light of the findings presented in this paper.

Discussion and Conclusions

Numerous studies on the treatment of comorbid Axis I and Axis II have been reviewed in this paper. The general conclusion of this paper is that brief treatments for this population may be necessary but not sufficient. The studies reviewed suggest that some measure of success can be achieved in treating Axis I disorders, even in those with personality disorders (e.g., Chambless et al., 1997, Merchand et al., 1998). Although the gains may be slower or less significant, if patients can be offered even partial relief of their anxiety, somatoform, depressive, or other symptoms, then the treatment of such conditions should be applied. To argue that comorbid personality disorders make such treatments completely unsuccessful is inconsistent with the studies reviewed here.

However, it cannot be concluded from the current review that personality disorders have no impact on Axis I treatments. Numerous studies indicated that those with personality disorders responded at a slower rate to Axis I treatment. Such persons improved, although it took longer for them to do so. In addition, those with personality

disorders almost always remained pathological in regard to overall functioning at the end of treatment, leaving such persons to deal with greater suffering. Merchand et al. (1998) suggested the effectiveness and cost effectiveness of the brief treatments usually employed would be enhanced with specific interventions for the personality disorders.

The issue has also been raised whether or not such brief, symptom-focused treatments for this population satisfy the mental health professional's legal and ethical mandate to provide adequate treatment" (Schwieger, 1999). Target (1998) stated that those with severe personality disorders "are not well served by the brief therapy models most commonly applied in outcome research" (p. 225). There is a danger in offering patients only brief treatment when they need more to achieve meaningful gains. Whereas those with more simple, straightforward Axis I diagnoses may be treated in eight to 12 sessions, others with more complicated pictures, such as the personality disordered, may need more extended treatment to achieve lasting results.

Schwieger (1999) reported that Axis I symptoms in those with personality disorders usually do not decrease to the level of their non-personality disordered counterparts. These personality disorder patients may often meet Axis I criteria after treatment and appear to relapse at greater frequencies. The above research findings raise the question of whether or not the typical dose of brief or managed care treatment for Axis I conditions, with a focus on symptom improvement only, is adequate or fulfills the obligation to appropriately treat personality-disordered patients.

In addition to these general conclusions, numerous specific issues were also raised in the reviewed studies and need to be highlighted, both here and in future research. The

topic of assessment as reviewed in this paper raises numerous problems that need to be addressed. First, there were many different assessment instruments used in the reviewed studies, with little consistency. A brief, non-exhaustive list of measures used includes the following: SCL-90, PDE, MCMI, SCID I, SCID II, interviews, BDI, HRSD, and PAS. It would be helpful to work toward developing a core battery or two that could be used in various studies of Axis I and Axis II cormibidity. This would streamline the assessment procedures and allow for comparisons between studies.

Next, the diagnosis of Axis I and Axis II disorders is imprecise at best. At times, they are measured in a categorical, yes-no fashion. Either one meets criteria or one does not. At other times, and arguably more realistic to actual practice, the disorders are measured in a dimensional manner, with various symptoms included on a number and degree of severity continuum. Studies that use categorical criteria often produce different results from studies using dimensional criteria. For example, Greenberg et al. (1995) noted that positive cluster C diagnoses and the presence of several cluster A symptoms both predicted poorer treatment response. These results suggest that when researchers use either the categorical or dimensional assessment criteria, they are likely to find different results. They may thus draw different conclusions as to whether Axis II impacts treatment and, if so, which personality features do so.

Third, the time at which assessment is done impacts the clarity of diagnosis. At intake, acute symptoms can sometimes present as personality disorder symptoms. As Leibbrand et al. (1999a, 1999b) have done, perhaps it is best to assess for Axis II diagnoses a few weeks into treatment, when an Axis I condition is not in an acute phase.

The question of how to measure outcome has been addressed by many researchers and practitioners and was discussed in this paper. One possible way to do this was reviewed in this paper: Reliable change and recovery (e.g., McKay et al., 1996). This method addresses what constitutes meaningful change that can be considered reliable, while setting another standard for what level of functioning can be considered "recovery." Using well-defined criteria for outcome would be helpful in attempts to sharpen the level of outcome research and provide better between study comparisons. It must be remembered, however, that using reliable change methodology still tends to address symptoms, which is only one aspect of overall functioning.

Of additional significance in measuring outcome is the study design and the statistical methods employed. An example of problems needing revision in this area is the study by Greenberg, et al. (1995). Three different statistical analyses resulted in three different conclusions. While examining and analyzing phenomena from different perspective can be valuable, it can also be problematic if strong conclusions are drawn. For example, claiming that personality disorders have no impact on treatment outcome may appear true when they are measured categorically or analyzed with a certain statistical procedure. This might not be the case, however, when personality disorder is assessed in a dimensional manner and results analyzed by different statistical methods.

Furthermore, there is room for researcher bias in the process of interpreting the results, and as Luborsky et al. (1999) suggested, researchers' therapeutic allegiances can lead to distortion in outcome studies. The process of developing and executing a study design, analyses, and drawing conclusions calls for careful consideration of potential

biases. Outcome researchers would do well to be thorough and consistent in methodology when examining such a complex area as the treatment of comorbid Axis I and Axis II disorders.

Several studies reviewed here indicated that different personality disorders, when matched with certain Axis I conditions, worked in opposite directions. This appeared to have masked or concealed the overall effects that personality disorders have on treatment outcome. For example, Scholing and Emmelkamp (1999) found that avoidant personality traits were associated with poorer outcome for those with generalized social phobia but enhanced outcome for those with somatic symptoms. Personality disorders may thus influence treatment differently based on which Axis I conditions are treated. They do not always exert an equal influence. If this is not recognized and statistically addressed, incomplete or even false conclusions could be drawn.

Finally, there is the issue of rule-outs and dropouts. Although it is much simpler in participant selection to rule out more severe patients, as did Hardy et al. (1995), it leads to serious questions of the power and generalizability of the conclusions to real-life practice. It can be argued that stringent rule out criteria, such as having had no treatment in three years, eliminates those with "real" disorders of personality. In reference to dropouts, it appears that, at least in some instances, the more severe or difficult personality disordered patients left treatment at a significantly greater rate than their non-personality disordered or less severely disordered counterparts. This occurred, for example, in the studies by Leibbrand et al. (1999b) and Steiger and Stotland (1996). Outcome conclusions drawn after such patients have dropped out seem inconclusive at best.

As Links (1996), Merchand et al. (1998) and others suggest, it is best to treat Axis I symptoms and also develop specific interventions for the personality disorder symptoms within the same treatment protocol. This practice would potentially address the problem raised regarding the insufficiency and inadequacy of brief treatment protocols offered to personality disordered persons. Ackley (1997) suggested, in line with clinical lore, that if a person has spent a lifetime building a personality pattern, then "changing the pattern itself takes more time than countering the latest instances of symptomatic behavior" (p. 16). An example of such an alternative, promising treatment model that addresses both Axis I and Axis II disorders was developed by Monson et al. (1995).

Monson et al. (1995) offered an example of a more complete treatment for those with comorbid Axis I and Axis II disorders. They treated patients with these comorbid conditions for periods from 5 months to 3.5 years. Participants in this study had significant and marked changes in many areas of life functioning, including Axis I and Axis II symptoms. In the long run, such a treatment program seems more complete, possibly less expensive, and provides greater depth of relief to those with comorbid Axis I and Axis II disorders.

In conclusion, it is apparent from the literature discussed here that selection, assessment, design, treatment, and disorder variables can all significantly influence research results. Leibbrand et al. (1999b) and others emphasize this point in noting that conflicting results can be explained by different assessment methods, the size and composition of samples, treatment strategies, and severity of personality disorders. In addition, there appear to be promising treatment strategies outside of the usual focus on

symptom relief often employed with this population that demand further investigation. These strategies can be addressed in future research and practice so that better, more helpful treatments can be developed for patients with comorbid Axis I and Axis II disorders.

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